What Is Claimed Is:

1. A data synchronization method between a plurality of information apparatus for performing synchronization of data stored in said information apparatus, a record which forms data retained by each of said information apparatus including one or more data items, comprising:

a step, executed by each of said information apparatus when self data thereof is updated, of fetching time stamp information which indicates updating date and time for each of the data items;

a step, executed by a first one of said information apparatus, of transmitting the self data thereof including the time stamp information of each of the data items to a second one of said information apparatus which is a destination of data synchronization; and

a step, executed by the second information apparatus upon reception of the data transmitted from the first information apparatus, of comparing, regarding a data item which is an object of updating, the time stamp information of the self data thereof and the time stamp information transmitted from the first information apparatus with each other and fetching the newest time stamp information to update the self data thereof.

2. A data synchronization method between a plurality of information apparatus as claimed in claim 1, further comprising:

a step, executed by the second information apparatus, of transmitting the data including the updated time stamp

information of each of the data items to the first information apparatus; and

a step, executed by the first information apparatus, of comparing, regarding the data item which is an object of updating, the time stamp information of the self data thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest time stamp information to update the self data thereof.

3. A data synchronization method between a plurality of information apparatus as claimed in claim 1, wherein the data is formed from a plurality of data tables which are related to each other.

4. A data synchronization method between a plurality of information apparatus as claimed in claim 1, wherein the record which forms the data includes data which indicates an attribute of the record and a data synchronization process regarding the record is performed in accordance with the attribute.

5. A data synchronization method between a plurality of information apparatus as claimed in claim 1, wherein said information apparatus are divided into arbitrary groups each of which defines a range within which data exchange is to be performed, and each of said information apparatus includes, regarding all information apparatus which belong to a group to which the information apparatus itself belongs, group management data for managing a relationship regarding to which group ach of said information apparatus belongs and selects,

based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process.

6. A data synchronization method between a plurality of information apparatus as claimed in claim 5, further comprising:

a step, executed by each of said information apparatus, of fetching time stamp information which indicates updating date and time of each record of the group management data;

a step, executed by the first information apparatus, of transmitting the group management data including the time stamp information to the second information apparatus which is a destination of data synchronization; and

a step, executed by the second information apparatus upon reception of the data transmission from the first information apparatus, of comparing the time stamp information of the self group management data thereof and the time stamp information of the group management data transmitted from the first information apparatus with each other and fetching the newest group management data to update the self group management data thereof.

7. A data synchronization method between a plurality of information apparatus as claimed in claim 6, further comprising:

a step, executed by the second information apparatus upon reception of the transmission of the group management data, of transmitting the group management data thereof including the time stamp information updated thereby to the first

information apparatus; and

a step, executed by the first information apparatus upon reception of the data transmission from the second information apparatus, of comparing, regarding the group management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest group management data information to update the self group management data thereof.

8. A data synchronization method between a plurality of information apparatus as claimed in claim 1, wherein each of said information apparatus includes information apparatus management data for managing access information to an opposite information apparatus with which the information apparatus is to perform the data synchronization, and accesses, based on the information apparatus management data, the opposit information apparatus with which the information apparatus is to perform the synchronization process.

9. A data synchronization method between a plurality of information apparatus as claimed in claim 8, wherein a record which forms the information apparatus management data includes time stamp information which indicates updating date and time of the record, and further comprising:

a step, executed by the first information apparatus, of transmitting the information apparatus management data including the time stamp information to the second information apparatus which is the data synchronization destination; and

a step, xecuted by the second information apparatus upon reception the data transmission from the first information apparatus, of comparing the time stamp information of the self information apparatus management data thereof and the time stamp information of the information apparatus management data transmitted from the first information apparatus with each other and fetching the newest information apparatus management data to update the self group management data thereof.

10. A data synchronization method between a plurality of information apparatus as claimed in claim 9, further comprising:

a step, executed by the second information apparatus upon reception of the transmission of the information apparatus management data, of transmitting the information management data thereof including the time stamp information updated thereby to the first information apparatus; and

a step, executed by the first information apparatus upon reception of the data transmission, of comparing, regarding the information apparatus management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest information apparatus management data to update the self information apparatus management data thereof.

11. A data synchronization method between a plurality of information apparatus as claimed in claim 9, wherein each of said information apparatus possesses data which indicates last synchronization date and time of each of said information

apparatus which s rves as a source of data transmission and performs data updating only when the time stamp information is newer than the last synchronization date and time of the information apparatus which is the source of the data transmission.

12. A data synchronization method between a plurality of information apparatus as claimed in claim 1, wherein the data possessed by each of said information apparatus includes information which indicates an information apparatus of an origin of data for each record or each data item and does not perform the synchronization process regarding the record or data item when the information apparatus of the origin of the data is same as the information apparatus which is a destination of data synchronization.

13. A data synchronization method between a plurality of information apparatus as claimed in claim 1, wherein, in all of said information apparatus, or in all of those of said information apparatus which belong to a group in which the data synchronization process is performed, garbage collection is performed after data synchronization is performed for information that a record of a processing object is deleted.

14. A synchronization method between a plurality of information apparatus as claimed in claim 1, wherein the data synchronization process is performed automatically in accordance with a predetermined time schedule.

15. A synchronization method between a plurality of

information apparatus as claimed in claim 1, wherein each of said information apparatus is selected from among apparatus including a portable telephone set, a personal computer, a PDA, a PHS terminal, a subscriber telephone set or a slave machine of a subscriber telephone set.

16. A synchronization method between a plurality of information apparatus as claimed in claim 1, wherein, as a communication method between said information apparatus, a portable telephone network, a PHS telephone network, a cradle, the Internet, a subscriber telephone network, communication between a master machine and a slave machine of a subscriber telephone set, communication between slave machines of a subscriber telephone set or radio communication is used.

17. A data synchronization method between a plurality of information apparatus for performing synchronization of data stored in said information apparatus, a record which forms data retained by each of said information apparatus including a first data item which indicates deletion information of the record and one or more second data items other than the first data item, comprising:

a step, executed by each of said information apparatus when self data is updated, of fetching first time stamp information regarding the first data item and fetching, regarding each of the second data items, second time stamp information which indicates updating date and time for each of the second data items;

a step, ex cuted by a first on of said information apparatus, of transmitting the self data thereof including the first and second time stamp information to a second one of said information apparatus; and

a step, executed by the second information apparatus upon reception of the data transmitted from the first information apparatus, of performing comparison, regarding the first and second data items included in a record of an updating object, between deletion information of the records, between both of the first time stamp information, between the first time stamp information and the second time stamp information, or between both of the second time stamp information and fetching the newest data to update the self data thereof.

18. A data synchronization method between a plurality of information apparatus as claimed in claim 4, further comprising:

a step, executed by the second information apparatus upon reception of the data transmission from the first information apparatus, of transmitting the updated data to the first information apparatus; and

a step, executed by the first information apparatus upon reception of the data transmission from the second information apparatus, of performing comparison, regarding the first and second data items included in the record of the updating object, between both of the deletion information of the records, between both of the first time stamp information, between the first tim stamp information and the second time stamp information,

or between both of th second time stamp information with each other and fetching the newest data to update the self data thereof.

19. A data synchronization method between a plurality of information apparatus as claimed in claim 17, wherein the data is formed from a plurality of data tables which are related to each other.

20. A data synchronization method between a plurality of information apparatus as claimed in claim 17, wherein the record which forms the data includes data which indicates an attribute of the record and a data synchronization process regarding the record is performed in accordance with the attribute.

21. A data synchronization method between a plurality of information apparatus as claimed in claim 17, wherein said information apparatus are divided into arbitrary groups each of which defines a range within which data exchange is to be performed, and each of said information apparatus includes, regarding all information apparatus which belong to a group to which the information apparatus itself belongs, group management data for managing a relationship regarding to which group each of said information apparatus belongs and selects, based on the group management data, an opposite information apparatus with which the information apparatus itself is to perform the synchronization process.

22. A data synchronization method between a plurality of information apparatus as claimed in claim 21, further

comprising:

a step, executed by each of said information apparatus, of fetching time stamp information which indicates updating date and time of each record of the group management data;

a step, executed by the first information apparatus, of transmitting the group management data including the time stamp information to the second information apparatus which is a destination of data synchronization; and

a step, executed by the second information apparatus upon reception of the data transmission from the first information apparatus, of comparing the time stamp information of the self group management data thereof and the time stamp information of the group management data transmitted from the first information apparatus with each other and fetching the newest group management data to update the self group management data thereof.

23. A data synchronization method between a plurality of information apparatus as claimed in claim 22, further comprising:

a step, executed by the second information apparatus upon reception of the transmission of the group management data, of transmitting the group management data thereof including the time stamp information updated thereby to the first information apparatus; and

a step, executed by the first information apparatus upon reception of the data transmission from the second information

apparatus, of comparing, regarding the group management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest group management data information to update the self group management data thereof.

24. A data synchronization method between a plurality of information apparatus as claimed in claim 17, wherein each of said information apparatus includes information apparatus management data for managing access information to an opposite information apparatus with which the information apparatus is to perform the data synchronization, and accesses, based on the information apparatus management data, the opposit information apparatus with which the information apparatus is to perform the synchronization process.

25. A data synchronization method between a plurality of information apparatus as claimed in claim 24, wherein a record which forms the information apparatus management data includes time stamp information which indicates updating date and time of the record, and further comprising:

a step, executed by the first information apparatus, of transmitting the information apparatus management data including the time stamp information to the second information apparatus which is the data synchronization destination; and

a step, executed by the second information apparatus upon reception the data transmission from the first information apparatus, of comparing the time stamp information of the self

information apparatus management data thereof and the time stamp information of the information apparatus management data transmitted from the first information apparatus with each other and fetching the newest information apparatus management data to update the self group management data thereof.

26. A data synchronization method between a plurality of information apparatus as claimed in claim 25, further comprising:

a step, executed by the second information apparatus upon reception of the transmission of the information apparatus management data, of transmitting the information management data thereof including the time stamp information updated thereby to the first information apparatus; and

a step, executed by the first information apparatus upon reception of the data transmission, of comparing, regarding the information apparatus management data, the self time stamp information thereof and the time stamp information transmitted from the second information apparatus with each other and fetching the newest information apparatus management data to update the self information apparatus management data thereof.

27. A data synchronization method between a plurality of information apparatus as claimed in claim 25, wherein each of said information apparatus possesses data which indicates last synchronization date and time of each of said information apparatus which serves as a source of data transmission and performs data updating only when the time stamp information

is new r than the last synchronization dat and time of the information apparatus which is the source of the data transmission.

28. A data synchronization method between a plurality of information apparatus as claimed in claim 17, wherein the data possessed by each of said information apparatus includes information which indicates an information apparatus of an origin of data for each record or each data item and does not perform the synchronization process regarding the record or data item when the information apparatus of the origin of the data is same as the information apparatus which is a destination of data synchronization.

29. A data synchronization method between a plurality of information apparatus as claimed in claim 17, wherein, in all of said information apparatus, or in all of those of said information apparatus which belong to a group in which the data synchronization process is performed, garbage collection is performed after data synchronization is performed for information that a record of a processing object is deleted.

30. A synchronization method between a plurality of information apparatus as claimed in claim 17, wherein the data synchronization process is performed automatically in accordance with a predetermined time schedule.

31. A synchronization method between a plurality of information apparatus as claimed in claim 17, wherein each of said information apparatus is selected from among apparatus

including a portable telephone set, a personal computer, a PDA, a PHS terminal, a subscriber telephone set or a slave machine of a subscriber telephone set.

32. A synchronization method between a plurality of information apparatus as claimed in claim 17, wherein, as a communication method between said information apparatus, a portable telephone network, a PHS telephone network, a cradle, the Internet, a subscriber telephone network, communication between a master machine and a slave machine of a subscriber telephone set, communication between slave machines of a subscriber telephone set or radio communication is used.

33. An information processing apparatus for use with an information processing system for performing data exchange between a plurality of information apparatus, comprising:

data storage means for storing data of the self information apparatus;

data reception means for receiving data from an opposite information apparatus;

data comparison means for comparing the data stored in said data storage means and the data received by said data reception means;

data updating means for updating the data of the self information apparatus based on a result of the data comparison by said data comparison means;

time management means for managing data updating time of the day in said data updating means; and

data transmission means for transmitting the data possessed by the self information apparatus to the opposite information apparatus.

34. An information processing apparatus for use with an information processing system for performing data exchange between a plurality of information apparatus, said plurality of information apparatus being divided into groups of apparatus within which the apparatus perform data exchange with each other, each of said information apparatus possessing group management data for managing a group belonging destination regarding all of those of said information apparatus which belong to a group to which the self information apparatus belongs, comprising:

data storage means for storing data of the self information apparatus;

data reception means for receiving data from an opposite information apparatus;

data comparison means for comparing the data stored in said data storage means and the data received by said data reception means with each other;

data updating means for updating the data of the self information apparatus based on a result of the data comparison by said data comparison means;

time management means for managing data updating time of the day in said data updating means;

data transmission means for transmitting the data possessed by the self information apparatus to the opposite

information apparatus;

group management data storage means for storing group management data of the self information apparatus;

group management data comparison means for comparing the data stored in said group management data storage means and group management data of the opposite information apparatus transmitted through said data reception means with each other;

group management data updating means for updating the group management data of the self information apparatus based on a result of the comparison by said group management data comparison means; and

time management means for managing data updating time of the day in said group management data updating means.

35. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not there is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information apparatus;

discriminating, when the processing object data item exists in the first information apparatus but does not exist in the second information apparatus, wheth r or not a record

to which the processing object data item existing in the first information apparatus belongs is deleted; and

copying, when the record to which the processing object data item existing in the first information apparatus belongs is not deleted, data of the data item possessed by the first information apparatus and updating date and time of the data item into the second information apparatus.

36. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not there is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information apparatus;

discriminating, when the processing object data item exists in both of the first and second information apparatus, whether or not a record to which the data item belongs is deleted in the first and second information apparatus;

comparing, when the record is not deleted in any of the first and second information apparatus, the updating date and time of the data item of the data possessed by the first information apparatus and the updating date and time of th data item possessed by the second information apparatus with

each other; and

copying, when the updating date and time of the data item possessed by the first information apparatus is newer than that of the data item possessed by the second information apparatus, the data and the updating date and time of the data item possessed by the first information apparatus into the second information apparatus.

37. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not there is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information apparatus;

discriminating, when the processing object data item exists in both of the first and second information apparatus, whether or not a record to which the data item belongs is deleted in the first and second information apparatus;

comparing, when a record to which the data item belongs is not deleted in any of the first and second information apparatus, the updating date and time of the data item possessed by the first information apparatus and the updating date and time of the data it m possessed by the second information

apparatus with each other;

discriminating, when the updating date and time of the data item of the data possessed by the first information apparatus and the updating date and time of the data item possessed by the second information apparatus are same as each other, a priority between the first and second information apparatus; and

copying, when the priority of the first information apparatus is higher than that of the second information apparatus, the data and the updating date and time of the data item possessed by the first information apparatus into the second information apparatus.

38. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not there is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information apparatus;

discriminating, when the processing object data item exists in both of the first and second information apparatus, whether or not a record to which the data item belongs is deleted in the first and second information apparatus;

comparing, when the record is del ted in the first information apparatus but is not deleted in the second information apparatus, deletion date and time of the record possessed by the first information apparatus and the updating date and time of the data item possessed by the second information apparatus with each other; and

copying, when the deletion date and time of the record possessed by the first information apparatus is newer than the updating date and time of the data item possessed by the second information apparatus, the deletion date and time of the record possessed by the first information apparatus into the deletion date and time of the record possessed by the second information apparatus.

39. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not there is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information apparatus;

discriminating, when the processing object data it m exists in both of the first and second information apparatus, whether or not a record to which the data item belongs is deleted

in the first and second information apparatus;

comparing, when the record is deleted in the first information apparatus but is not deleted in the second information apparatus, deletion date and time of the record possessed by the first information apparatus and the updating date and time of the data item possessed by the second information apparatus;

discriminating, when the deletion date and time of the record possessed by the first information apparatus and the updating date and time of the data item possessed by the second information apparatus are same as each other, a priority between the first and second information apparatus; and

copying, when the priority of the first information apparatus is higher than that of the second information apparatus, the deletion date and time of the record possessed by the first information apparatus into the deletion date and time of the record possessed by the second information apparatus.

40. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not there is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information

apparatus;

discriminating, when the processing object data item exists in both of the first and second information apparatus, whether or not a record to which the data item belongs is deleted in the first and second information apparatus;

comparing, when the record is not deleted in the first information apparatus but is deleted in the second information apparatus, the updating date and time of the processing object data item possessed by the first information apparatus and the deletion date and time of the record possessed by the second information apparatus with each other; and

setting, when the updating date and time of the processing object data item possessed by the first information apparatus is newer than the deletion date and time of the record possessed by the second information apparatus, the deletion date and time of the record possessed by the second information apparatus to [not deleted] and copying the data and the updating date and time of the processing object data item possessed by the first information apparatus into those of the processing object data item of the second information apparatus.

41. A program for performing data exchange between a first information apparatus which functions as an information apparatus of a source of data transmission and a second information apparatus which functions as an information apparatus of a destination of data transmission, comprising the steps of:

discriminating whether or not ther is a data item of a processing object in data possessed by the first information apparatus and in data possessed by the second information apparatus;

discriminating, when the processing object data item exists in both of the first and second information apparatus, whether or not a record to which the data item belongs is deleted in the first and second information apparatus;

comparing, when the record is not deleted in the first information apparatus but is deleted in the second information apparatus, the updating date and time of the processing object data item possessed by the first information apparatus and the deletion date and time of the record possessed by the second information apparatus with each other;

discriminating, when the updating date and time of the data item possessed by the first information apparatus and the deletion date and time of the record possessed by the second information apparatus are same as each other, a priority between the first and second information apparatus; and

setting, when the priority of the first information apparatus is higher than that of the second information apparatus, the deletion date and time of the record, to which the processing object data item belongs, possessed by the second information apparatus to [not deleted] and copying the data and the updating date and time of the processing object data item possessed by the first information apparatus into those of the processing

object data item poss ssed by the second information apparatus.